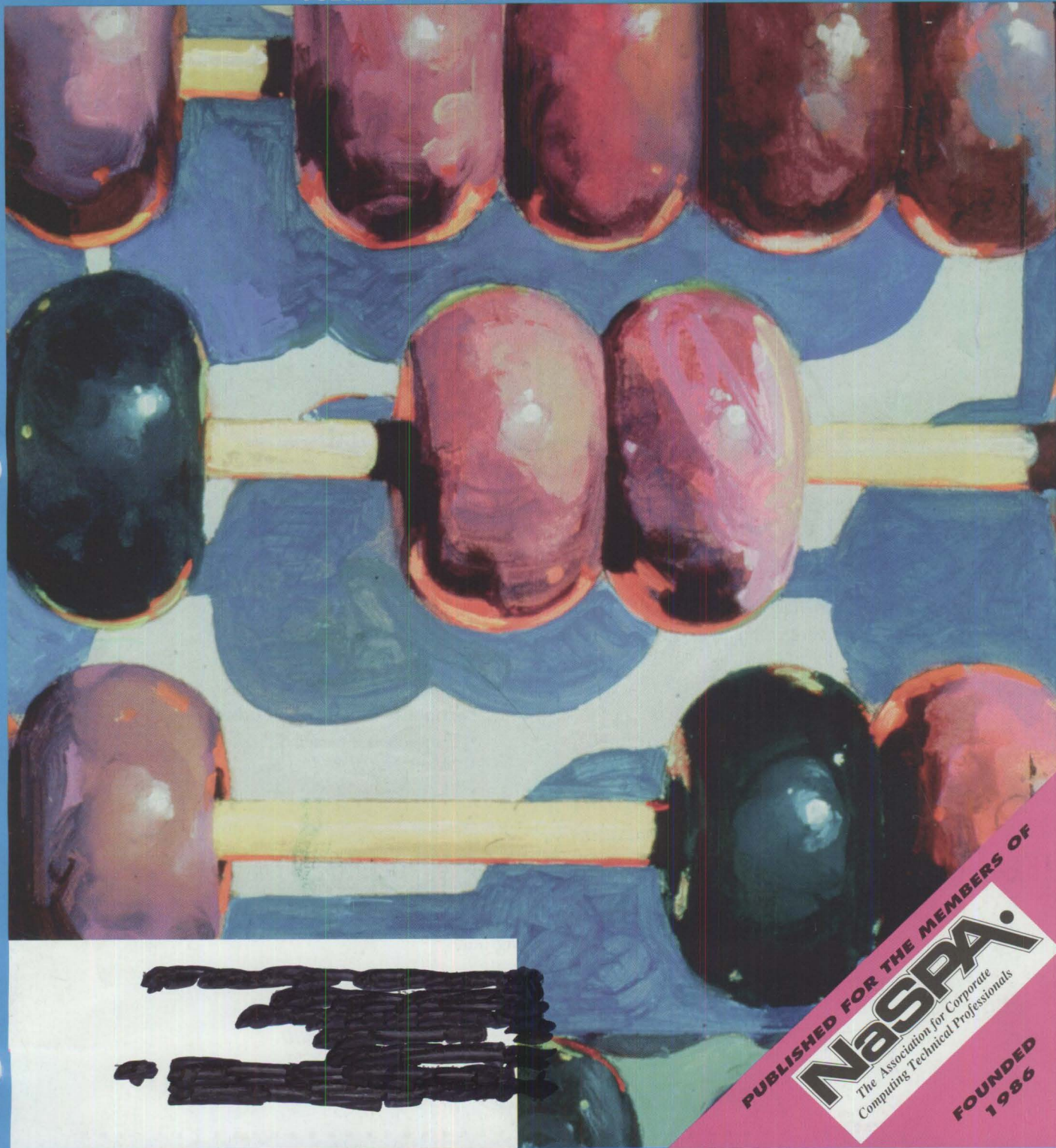


IN-DEPTH REPORT

COMPUTING SOLUTIONS

VOLUME 1 • NUMBER 3 • OCTOBER 1993



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NASPA
The Association for Corporate
Computing Technical Professionals

FOUNDED
1986

FROM THE PRESIDENT

Dear Reader;



So much is happening here at NaSPA headquarters and with the Association! I'd like to describe two noteworthy events that are coming up: the NaSPA board of directors election and NaSTEC preparations.

November 30 marks the annual board of directors elections for NaSPA. The board is comprised of seven individuals—three Technical Enterprises, Inc. staff members and four members at large. This alignment of three staffers and four volunteer members ensures that the members always have the majority vote in matters of board interest.

Once elected, the volunteer members of the board serve a two-year term and may be elected for a maximum of two contiguous terms. You may be re-elected to a third term after at least a one year absence on the board. In 1994, two board positions will be vacated; one by Bennie Shearer of Houston, who has served consecutive terms on the Foundation and NaSPA boards, and the other by Emit Hurdlebrink of Denver, who has served two consecutive terms on the NaSPA board. If you are interested in becoming a board member and helping to oversee the association, contact me and I will send you an information letter and application.

October starts our annual pre-NaSTEC conference warm-up! NaSTEC 6.0 will be held in Orlando March 13 - March 16, 1994. Once again, NaSTEC will be held at the Orlando Marriot on International Drive and Sandlake Road about a mile from Universal Studios and five miles from Disney World. For NaSTEC 6.0, the room rates will be even lower than last year's—\$82.00 per night. This is the hotel to bring your families to while you attend the conference. The hotel is comprised of about a dozen two-story buildings set around pools and tennis courts—great resort living at a very low cost.

On the agenda for NaSTEC 6.0 is a repeat of our renowned education format implemented at NaSTEC 5.0. You won't be teased with all of the how-fast-can-we-get-through-this-topic seminars. Instead, you are given half and full-day seminars by the very best speakers in the industry on a variety of topics. The following are just some of the presenters who will be giving full and half-day seminars:

Steve Samson of Candle Corporation on MVS, Cheryl Watson of Watson and Walker on MVS, Pete Clark on VSE, Harold Hauck on UNIX, and Novell Corporation on NetWare.

As many of you requested last March at NaSTEC 5.0, NaSTEC 6.0 will include a variety of architectures and topics, not just 370/390. In addition to the outstanding lineup in the 370 operating system arena, there will be UNIX topics presented by Harold Hauck, NetWare topics presented by Novell's instructors, as well as other popular topics such as TCP/IP, REXX, client/server, NaSCOM and commercial BBSes and OS/2.

We are also pleased to announce that John Walker, Ph.D., from IBM Raleigh, will be making presentations on APPN/APPC.

We would also like to welcome The Washington Systems Center. Those highly revered folks, formerly from IBM, who have written us those scores of outstanding orange publications to make our hardware and software run even better, have a new name: *Washington Systems Consulting*. This group will give presentations on disaster planning and client/server computing.

So mark your calendar for NaSTEC 6.0 (registrations are now being accepted). Come to the only education conference in the industry that is sized just right to allow you to meet with the instructors, staff, chapter officers and the board of directors, and share your ideas, concerns and suggestions. Come mid-March to Orlando, home of Disney World and avoid the Easter weekend rush, higher airfares and the crowds that go with it!

Sincerely,

Scott Sherer
President, NaSPA, Inc.

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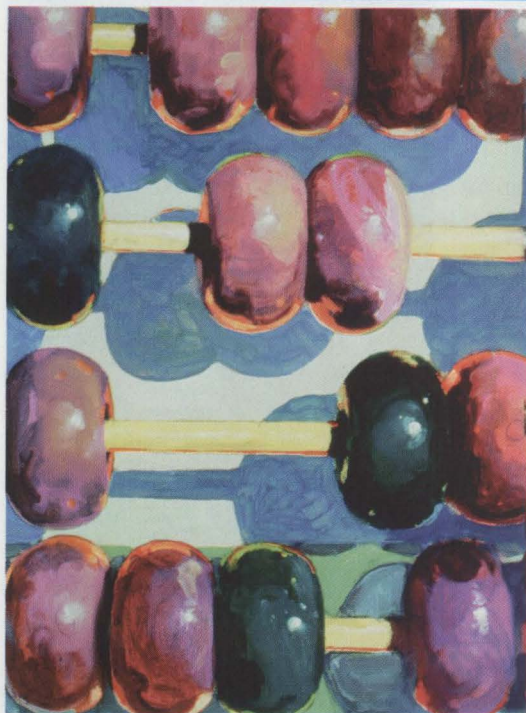
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NaSPA
The Association for Corporate
Computing Technical Professionals

NaSPA Mission Statement:

The mission of NaSPA, Inc., a not-for-profit organization, shall be to serve as the means to enhance the status and promote the advancement of all corporate computing technical professionals; nurture member's technical and managerial knowledge and skills; improve member's professional careers through the sharing and dispersing of technical information; promote the profession as a whole; further the understanding of the profession and foster understanding and respect for individuals within it; develop and improve educational standards; and assist in the continuing development of ethical standards for practitioners in the industry.

This article will show you how to configure OS/2 Communications Manager to emulate an SNA Physical Unit (PU) on a Token-Ring local area network (LAN). A sample Communication Manager configuration will be discussed using a step-by-step approach through the configuration process.

Before we jump into the actual configuration, a little background information is required.

WHAT IS PU HOST ACCESS?

Figure 1 illustrates the type of host connection we will be configuring. An OS/2 workstation will be emulating a host PU, which means it will look like a terminal control unit to the host. The workstation will support four terminal sessions and one printer session.

The workstation will use the Down Stream Physical Unit (DSPU) method for accessing the host through a 3174 control unit. When a Token-Ring Interface Coupler (TIC) is installed in a 3174 control unit, several DSPUs are defined in the 3174s microcode. The OS/2 workstation, emulating a PU, will access the host using the DSPU address specified in the 3174 TIC customization.

This configuration would also work for a DSPU associated with a TIC installed on a 37x5 front-end processor.

PREREQUISITES

Before we begin, we must make sure the network is set up properly to allow the host connectivity to occur.

First, you should already have OS/2 and Extended Services installed on a workstation. This workstation must be connected to a Token-Ring network.

You must have a TIC connection to the host on the same Token-Ring network that the workstation is connected to. The TIC can reside in either a 3174 terminal control unit or a 37x5 communications front-end processor. The TIC must have at least one DSPU defined for our use. Additionally, you will need to know the address of both the TIC and the associated DSPU.

Don't worry about the host VTAM parameters. We will be discussing these requirements in detail as we progress through the actual configuration.

COMMUNICATIONS MANAGER CONFIGURATION

The best way to begin the configuration is to start with a fresh configuration

file. So, let's get started...

- Step 1 - Double click on the "Extended Services" icon.
- Step 2 - Double click on the "Basic Configuration Services" icon.
- Step 3 - Select CREATE to create a new configuration file.
- Step 4 - You will be prompted for a Basic Configuration File Name. This can be any one to eight characters you choose. TRPU1 was chosen for this example.
- Step 5 - The next screen will allow you to enter a comment about the configuration. You can place any comment you wish in this screen.
- Step 6 - Select 3270 Terminal Emulation.

The screen illustrated in Figure 2 will appear. You may choose up to four host sessions and one host printer session. Specify "yes" on the "Start all sessions automatically" option to start all of the emulators when communications manager comes up.

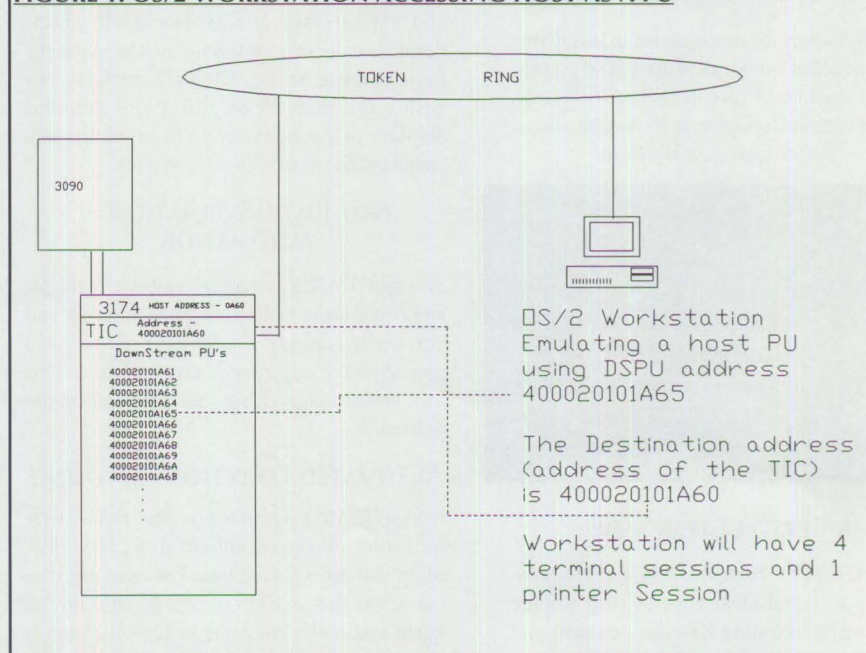
Make sure you select the LAN option under connection type.

- Step 7 - The next panel will ask you for the network type. Choose IBM Token-Ring Network.
- Step 8 - The next panel will prompt you for the type of Token-Ring adapter installed in the PC. Choose the correct entry for the type of Token-Ring Adapter installed in your workstation.
- Step 9 - This step is crucial for the Downstream PU methodology. The DSPU requires the workstation to become the downstream PU defined in the 3174. To do

TOKEN-RING SNA PU EMULATION CONFIGURING COMMUNICATIONS MANAGER

By John Johnston

FIGURE 1: OS/2 WORKSTATION ACCESSING HOST AS A PU



this, we must select "Specify a locally administered address on this panel".

- Step 10 - On the panel illustrated in Figure 3, we specify our locally administered address (LAA). Figure 3 shows you the actual OS/2 configuration screen and how the LAA relates to the 3174 DSPUs. The address specified in the configuration panel, 400020101A65, is the fifth DSPU defined in the 3174 customization.

You must specify an address of one of the DSPUs defined in your network. This can be a 3174 DSPU or a DSPU defined to a 37x5 control unit. You must make sure that the DSPU chosen is not being used by any other device in your network.

- Step 11 - The next panel will prompt you for a LAN destination address as shown in Figure 4. You must type in the Token-Ring address of the TIC in your network that is associated with the DSPU that was entered on the previous step.

The LU numbers will be placed in the panel for you. These numbers are used by the PU emulator to direct the mainframe data to the correct mainframe session on the workstation. In this example, four host terminal sessions and one printer session were defined. The configuration program automatically placed the numbers 02-06 in the panel. You should use the default numbers placed in the panel.

- Step 12 - This panel, as illustrated in Figure 5, will ask you for three items: the local Node name, the Network ID and the Local node ID. The local node name must match the member name in SYS1.VTAMLST that defines the PU.

Notice the Locaddr numbers in the VTAM PU/LU definition. These numbers must match the LU numbers defined in Step 11 and must be 2-6.

You may choose the default Network ID and Local node ID if you are connecting to a local host.

- Step 13 - The next screen should tell you that the 3270 emulation feature was successfully completed. Press F3 to continue.

- Step 14 - This screen asks you if you want to install the configuration file. Select the Install Basic Configuration option.
- Step 15 - The next panel will tell you that Communications manager was successfully installed and to select F3 to complete the installation. The Install Data Base Manager option will already be selected.

You should hit F3 here and you will notice a lot of disk activity. It may look

like you are installing Data Base Manager. However, you are not. Just wait there until the next screen appears.

- Step 16 - This panel will tell you that the configuration is completed. It will instruct you to shutdown and re-boot your system. You should re-boot and watch closely for errors.
- Step 17 - Now it is time to define your workstation to the VTAM software on the mainframe. VTAM has a configuration file that controls all of

FIGURE 2: 3270 TERMINAL EMULATION DEFAULTS

3270 Terminal Emulation Defaults

Use the spacebar to change 3270 terminal emulation selections. An arrow is displayed next to the option when it is selected. Press Enter when you have completed all of the selections.

Number of 3270 host sessions.	1 2 3 >4
3270 printer session.	>Yes No
Start all sessions automatically.	>Yes No
Connection type	DFT >LAN SDLC

Enter Esc=Cancel F1=Help

FIGURE 3: OS/2 PU CONFIGURATION - LOCALLY ADMINISTERED ADDRESS

Select LAN Address Type

Select the type of network address and press enter

Local LAN Adapter Address

The Local LAN adapter address must be unique for each workstation on the LAN.

Type the correct local LAN adapter address for your workstation and Enter.

Local LAN adapter address [400020101A65]

Enter Esc=Cancel F1=Help

FIGURE 4: OS/2 PU CONFIGURATION - LAN DESTINATION ADDRESS

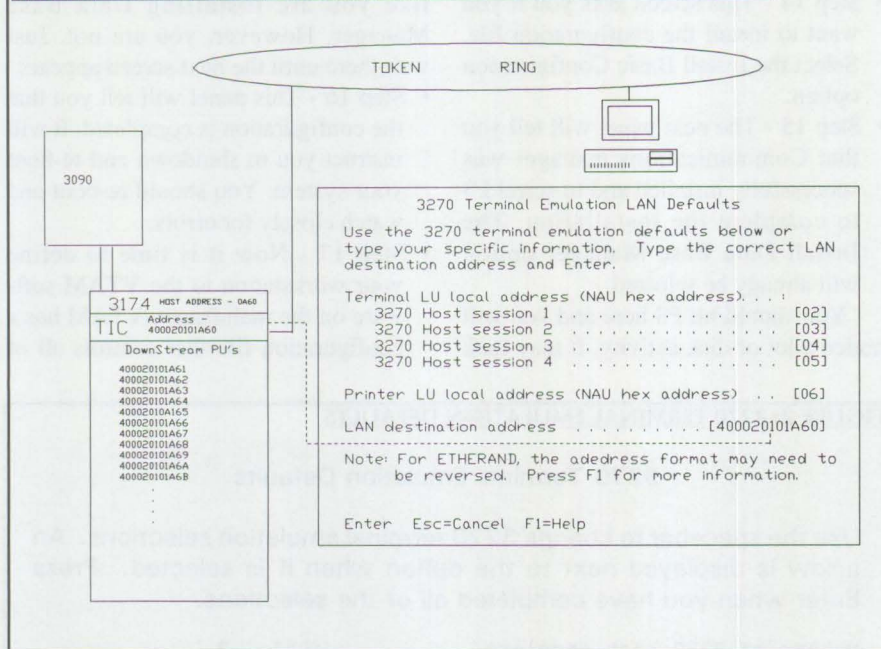
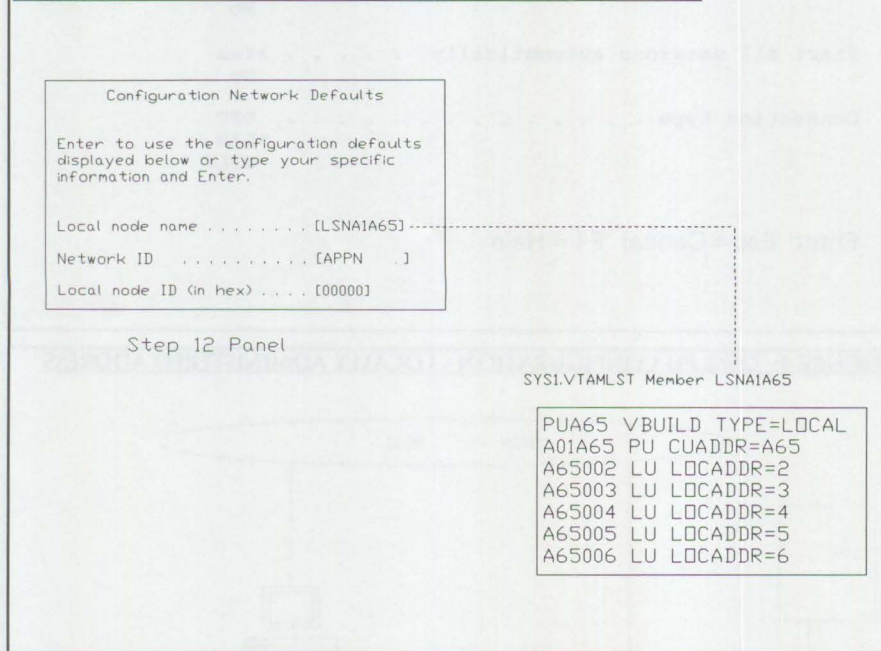


FIGURE 5: OS/2 LOCAL NODE NAME AND VTAM PARAMETERS



the mainframe communications devices. In most shops, the name of this file is SYS1.VTAMLST.

In the OS/2 configuration panel illustrated in Figure 5, we chose LSNA1A65 as the local node name. This name must be defined to VTAM by placing a member named LSNA1A65 into SYS1.VTAMLST. A sample of this member is shown on the bottom of Figure 5.

The first line of the LSNA1A65 member tells VTAM that we are defining a local resource.

The second line tells VTAM that we are defining a PU named A01A65. This PU uses MVS address A65.

The remaining lines tell VTAM that this PU controls five LUs named A65002-A65006. Notice the Locaddr parameter. This must match the numbers specified in Figure 4 and must be 2-6.

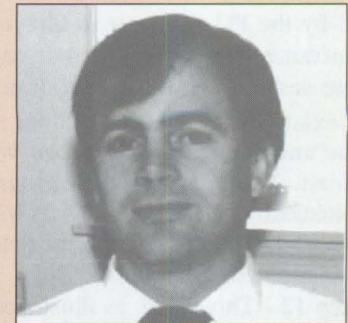
After this member is created in SYS1.VTAMLST, you need to vary the PU and its related LUs active. Use the following VTAM command to do this: VNET,ACT,ID=LSNA1A65,SCOPE=ALL

- Step 18 - After your PC re-boots, go into the Communications Manager icon and double click on the Communications Manager icon. When you are prompted for a Configuration file name, enter TRPU1, or whatever name you specified in step 4.

There is a bug in either OS/2 or Communications Manager where the Communications Manager icon disappears after performing a configuration. If this happens, you can still start Communications Manager by opening an OS/2 full-screen or OS/2 window session and entering the following command:

START CM

- Step 19 - Your host sessions should come up!



NaSPA member, John Johnston, is manager of Technical Support and Communications for a major hospital in Pennsylvania. John recently implemented the "Universal Workstation and Printer" concept. This concept utilizes an OS/2 workstation to access several hardware and software platforms, including a DEC/VAX, an IBM 3090 and multiple Novell LANs. John can be reached through NaSCOM; his user ID is Johnjohe.

Was this article of value to you? If so, please let us know by circling Reader Service No. 30.

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IBM INTRODUCES COMMUNICATIONS MANAGER/2

Earlier this year, IBM introduced the new, enhanced version of Communications Manager, which provides APPC support and other communications services for OS/2 workstations. Communications Manager/2 is a separate OS/2 product that enables workstations to communicate with mainframes, midrange computers or other users' workstations over wide area and local area networks (WANs and LANs).

So, what's the difference between Communications Manager/2 and the Communications Manager component of OS/2 Extended Edition or Extended Services? Communications Manager/2 simplifies installation, configuration and problem determination, and, at the same time, increases workstation and gateway capacity. Also, Communications Manager/2 is now separate from the OS/2 Data Base Manager product.

EASIER TO USE

All Communications Manager/2 screens use a consistent graphical user interface (GUI) based on Presentation Manager. The GUI not only improves the installation and configuration processes, but also improves the usability of terminal emulation and systems management.

The totally new installation and configuration processes also feature automatic hardware discovery, preset defaults and automatic validation of parameters. Because Communications Manager/2 utilizes the new Configure/Installation/Distribution (CID) methodology, you can now install and configure unattended workstations remotely, thus ensuring increased productivity for both administrators and users.

NEW FEATURES

Communications Manager/2 provides an increased number of terminal emulation sessions (up to 16 concurrent sessions), which can stimulate higher productivity at the workstation. You can also use Communications Manager/2 to connect to three separate hosts simultaneously. In addition, you can now run three

times as many sessions through a gateway as before. And, with the ISDN Basic Rate Interface support (for X.25 and SDLC protocols), you can use Communications Manager/2 to digitally transmit data across telephone lines.

Finally, Communications Manager/2 incorporates First Failure Support Technology (FFST), a sophisticated problem determination technology that makes it easier to isolate, identify and resolve problems quickly.

This sidebar was reprinted from *THE APPC CONNECTION*, a bimonthly newsletter on Advanced Program-to-Program Communication (APPC) and Advanced Peer-to-Peer Networking (APPN). To get a free subscription to this newsletter, fax your name and complete mailing address to (201) 784-2240 or send your request to: *THE APPC CONNECTION*, P.O. Box 369, Orangeburg, NY 10962-0369.

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